

Postgraduate Certificate Virtual, Augmented and Mixed Reality





Postgraduate Certificate Virtual, Augmented and Mixed Reality

- » Modality: online
- » Duration: 6 weeks
- » Certificate: TECH Global University
- » Credits: 6 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: www.techtute.com/us/engineering/postgraduate-certificate/virtual-augmented-mixed-reality

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01

Introduction

The application of Virtual Reality, Augmented and Mixed for the visualization of data, the detection, and resolution of problems or the planning of architectural spaces has expanded the field of action of engineers. Faced with this reality, many professionals incorporate them into their projects, in order to optimize the results obtained and provide customers with a more satisfactory job. For this reason, TECH has designed this 100% online qualification that leads graduates to achieve, in just 6 weeks, the most comprehensive knowledge about the use of these tools, the creation of user experiences and the future of immersive technologies. All this, in addition, with quality teaching material, created by established experts in this sector.





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With TECH you will be up to date with the current situation of Virtual Reality, Augmented and Mixed in different industries"

Identifying problems efficiently with smart glasses, the overlay of information in the real environment during the construction process with Virtual Reality or the visualization of results of simulations in Augmented Reality have completely transformed the work of engineers.

This panorama, marked by immersive technologies, has led to a decisive commitment by them in various economic sectors, highlighting their impact on the planning and execution of engineering projects. For this reason, TECH has created this Postgraduate Certificate in Virtual, Augmented and Mixed Reality of 6 weeks duration.

In this way, the graduate who undergoes this program will enter an intensive academic journey of 180 hours, with the most current and advanced information in this area. For this, it has a content made by authentic experts with a consolidated history in the technological field. In addition, this academic institution provides numerous didactic material based on video summaries, videos in detail, specialized readings and case studies.

Also, thanks to the Relearning method, focused on the continuous reiteration of the essential content, the graduate will be able to acquire a much more effective learning and simple, while reducing the long hours of study so frequent in other pedagogical methodologies.

The engineer is then faced with an exceptional opportunity to increase their field of action in their sector, a Postgraduate Certificate that they can study when and where they want. Students only need a digital device with an Internet connection to visualize the contents hosted on the virtual platform at any time. This way, without the need for attendance or classes with pre-set timetables, the student will have greater freedom to self-manage their study time and this teaching with it with their daily personal activities.

This **Postgraduate Certificate in Virtual, Augmented and Mixed Reality** contains the most complete and up-to-date program on the market. The most important features include:

- ◆ The development of case studies presented by experts in Digital Transformation and Industry 4.0
- ◆ The graphic, schematic, and practical contents with which they are created, provide practical information on the disciplines that are essential for professional practice
- ◆ Practical exercises where self-assessment can be used to improve learning
- ◆ Its special emphasis on innovative methodologies
- ◆ Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- ◆ Content that is accessible from any fixed or portable device with an Internet connection



Access an academic tour of 180 teaching hours with the most advanced knowledge in creating virtual environments"

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The case studies will lead you to delve into the use of Mixed Reality and Holographic in different areas of Engineering”

Integrate the latest trends in Augmented Reality into your engineering projects.

You will provide effective technological solutions thanks to this 100% online Postgraduate Certificate. Enroll now.

The program's teaching staff includes professionals from the field who contribute their work experience to this educational program, as well as renowned specialists from leading societies and prestigious universities.

The multimedia content, developed with the latest educational technology, will provide the professional with situated and contextual learning, i.e., a simulated environment that will provide immersive education programmed to learn in real situations.

This program is designed around Problem-Based Learning, whereby the professional must try to solve the different professional practice situations that arise during the academic year. For this purpose, the students will be assisted by an innovative interactive video system created by renowned and experienced experts.



02

Objectives

Upon completion of this instruction, the student will have attained a high knowledge of Virtual, Augmented and Mixed Reality. In this way, it will be able to integrate into its daily practices the advances achieved through these technologies that today have endless possibilities in sectors such as industrial, education, health, or construction. To further facilitate this goal, the graduate has case studies that will allow them to check the methodology and procedures used successfully in various companies.





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An academic option that provides you with a theoretical-practical approach to Virtual Reality, applied to various socioeconomic areas"



General Objectives

- ◆ Conduct a comprehensive analysis of the profound transformation and radical paradigm shift being experienced in the current global digitalization process
- ◆ Provide in-depth knowledge and the necessary technological tools to face and lead the technological leap and the challenges currently present in companies
- ◆ Mastering the digitalization procedures of companies and the automation of their processes to create new fields of wealth in areas such as creativity, innovation and technological efficiency
- ◆ Leading Digital Change





Specific Objectives

- ◆ Acquire expert knowledge on the characteristics and fundamentals of virtual reality, augmented reality and mixed reality, as well as their differences
- ◆ Use applications of each of these technologies and develop solutions with each of them individually and in an integrated manner, combining them to define immersive experiences

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Investigate through the best teaching material in the latest applications of smart glasses”

03

Course Management

The students who take this program will have at their disposal an agenda prepared and elaborated by an excellent team of specialists in Artificial Intelligence, Internet of Things and the latest technological trends. In this way, their exquisite knowledge will be reflected in this high quality qualification. Also, in case of any doubt about the content taught, the graduate will be able to solve it with the specialized teaching staff that is also characterized by its proximity.





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Reputable experts in Wearable Technology and Internet of Things offer you the agenda you need to progress as an engineer”

Management



Mr. Segovia Escobar, Pablo

- Chief Executive of the Defense Sector in the Company Tecnobit of the Oesía Group
- Corporate Project Director Indra
- Master's Degree in Companies Administration and Management by the National University of Distance Education
- Postgraduate in Strategic Management Function
- Member of: Spanish Association of People with High Intellectual Quotient



Mr. Diezma López, Pedro

- Chief Innovation Officer and CEO of Zerintia Technologies
- Founder of the technology company Acuilae
- Member of the Kebala Group for business incubation and promotion
- Consultant for technology companies such as Endesa, Airbus or Telefónica
- Wearable "Best Initiative" Award in eHealth 2017 and "Best Technological "Solution" 2018 for occupational safety



04

Structure and Content

TECH has designed a Postgraduate Certificate designed for the Engineering professional to obtain the most advanced knowledge about Virtual, Augmented and Mixed Reality in just 6 weeks. To this end, this academic institution provides an agenda that will delve into each of these technologies and offers a practical vision of their application in various sectors. To this comprehensive content is added the extensive complementary teaching material hosted on the virtual platform, which will optimize the learning process.





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You have a library of virtual resources accessible 24 hours a day and from anywhere in the world thanks to your digital device with internet connection"

Module 1. Virtual, Augmented and Mixed Reality

- 1.1. Market and Tendencies
 - 1.1.1. Current Market Situation
 - 1.1.2. Reports and Growth by Different Industries
- 1.2. Differences Between Virtual, Augmented and Mixed Reality
 - 1.2.1. Differences Between Immersive Realities
 - 1.2.2. Immersive Reality Typology
- 1.3. Virtual Reality Cases and Uses
 - 1.3.1. Origin and Fundamentals of Virtual Reality
 - 1.3.2. Cases Applied to Different Sectors and Industries
- 1.4. Augmented Reality Cases and Uses
 - 1.4.1. Origin and Fundamentals of Augmented Reality
 - 1.4.2. Cases Applied to Different Sectors and Industries
- 1.5. Mixed and Holographic Reality
 - 1.5.1. Origin, History and Fundamentals of Mixed and Holographic Reality
 - 1.5.2. Cases Applied to Different Sectors and Industries
- 1.6. 360° Photography and Video
 - 1.6.1. Camera Typology
 - 1.6.2. Uses of 360 Images
 - 1.6.3. Creating a Virtual Space in 360 Degrees
- 1.7. Virtual World Creation
 - 1.7.1. Platforms for the Creation of Virtual Environments
 - 1.7.2. Strategies for the Creation of Virtual Environments
- 1.8. User Experience (UX)
 - 1.8.1. Components in the User Experience
 - 1.8.2. Tools for the Creation of User Experiences
- 1.9. Devices and Glasses for Immersive Technologies
 - 1.9.1. Device Typology on the Market
 - 1.9.2. Glasses and Wearables: Operation, Models and Uses
 - 1.9.3. Smart Glasses Applications and Evolution
- 1.10. Future Immersive Technologies
 - 1.10.1. Tendencies and Evolution
 - 1.10.2. Challenges and Opportunities





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A Postgraduate Certificate that will allow you to create first level virtual worlds in 360 degrees"

05

Methodology

This academic program offers students a different way of learning. Our methodology uses a cyclical learning approach: **Relearning**.

This teaching system is used, for example, in the most prestigious medical schools in the world, and major publications such as the **New England Journal of Medicine** have considered it to be one of the most effective.





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Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"

Case Study to contextualize all content

Our program offers a revolutionary approach to developing skills and knowledge. Our goal is to strengthen skills in a changing, competitive, and highly demanding environment.

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At TECH, you will experience a learning methodology that is shaking the foundations of traditional universities around the world”



You will have access to a learning system based on repetition, with natural and progressive teaching throughout the entire syllabus.



The student will learn to solve complex situations in real business environments through collaborative activities and real cases.

A learning method that is different and innovative

This TECH program is an intensive educational program, created from scratch, which presents the most demanding challenges and decisions in this field, both nationally and internationally. This methodology promotes personal and professional growth, representing a significant step towards success. The case method, a technique that lays the foundation for this content, ensures that the most current economic, social and professional reality is taken into account.

“*Our program prepares you to face new challenges in uncertain environments and achieve success in your career”*

The case method is the most widely used learning system in the best faculties in the world. The case method was developed in 1912 so that law students would not only learn the law based on theoretical content. It consisted of presenting students with real-life, complex situations for them to make informed decisions and value judgments on how to resolve them. In 1924, Harvard adopted it as a standard teaching method.

What should a professional do in a given situation? This is the question that you are presented with in the case method, an action-oriented learning method. Throughout the program, the studies will be presented with multiple real cases. They will have to combine all their knowledge and research, and argue and defend their ideas and decisions.

Relearning Methodology

TECH effectively combines the Case Study methodology with a 100% online learning system based on repetition, which combines 8 different teaching elements in each lesson.

We enhance the Case Study with the best 100% online teaching method: Relearning.

In 2019, we obtained the best learning results of all online universities in the world.

At TECH, you will learn using a cutting-edge methodology designed to train the executives of the future. This method, at the forefront of international teaching, is called Relearning.

Our university is the only one in the world authorized to employ this successful method. In 2019, we managed to improve our students' overall satisfaction levels (teaching quality, quality of materials, course structure, objectives...) based on the best online university indicators.



In our program, learning is not a linear process, but rather a spiral (learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically.

This methodology has trained more than 650,000 university graduates with unprecedented success in fields as diverse as biochemistry, genetics, surgery, international law, management skills, sports science, philosophy, law, engineering, journalism, history, and financial markets and instruments. All this in a highly demanding environment, where the students have a strong socio-economic profile and an average age of 43.5 years.

Relearning will allow you to learn with less effort and better performance, involving you more in your training, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation for success.

From the latest scientific evidence in the field of neuroscience, not only do we know how to organize information, ideas, images and memories, but we know that the place and context where we have learned something is fundamental for us to be able to remember it and store it in the hippocampus, to retain it in our long-term memory.

In this way, and in what is called neurocognitive context-dependent e-learning, the different elements in our program are connected to the context where the individual carries out their professional activity.



This program offers the best educational material, prepared with professionals in mind:



Study Material

All teaching material is produced by the specialists who teach the course, specifically for the course, so that the teaching content is highly specific and precise.

These contents are then applied to the audiovisual format, to create the TECH online working method. All this, with the latest techniques that offer high quality pieces in each and every one of the materials that are made available to the student.



Classes

There is scientific evidence suggesting that observing third-party experts can be useful.

Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.



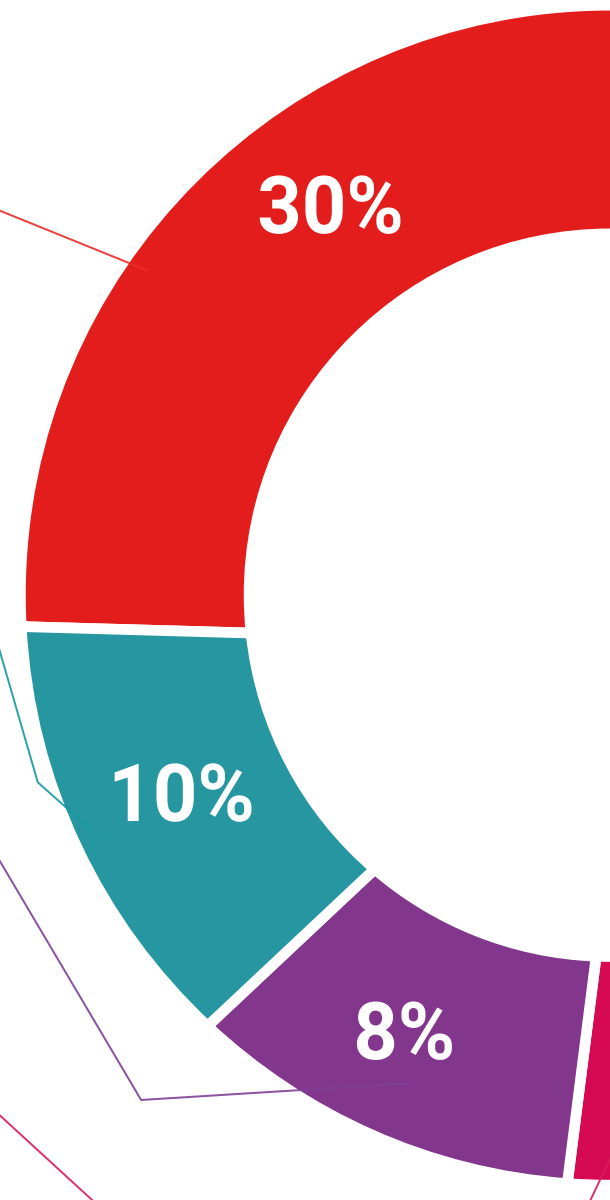
Practising Skills and Abilities

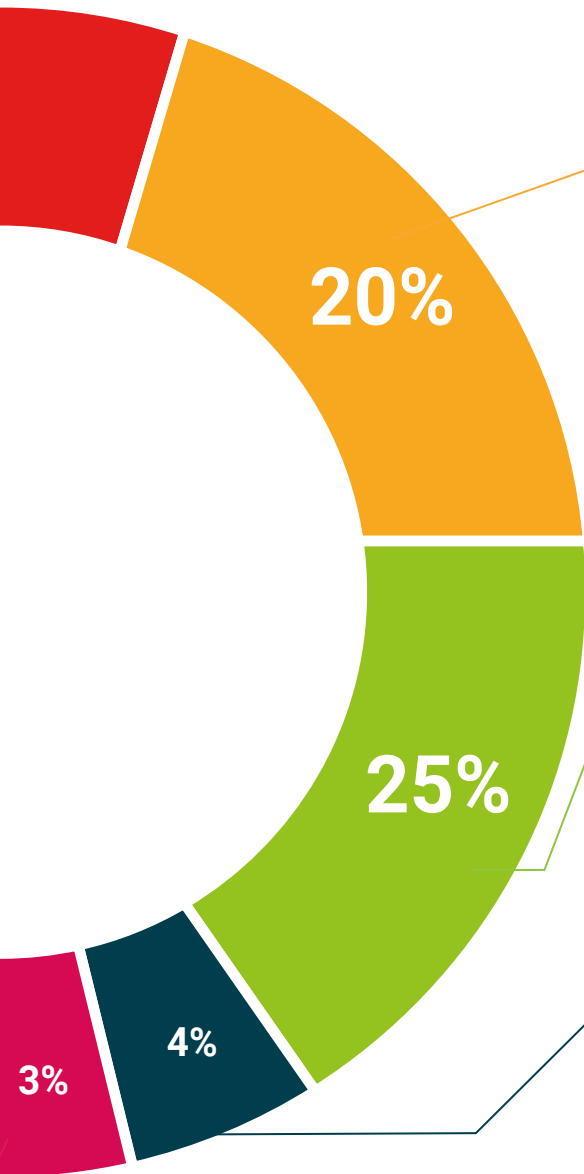
They will carry out activities to develop specific skills and abilities in each subject area. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop in the context of the globalization that we are experiencing.



Additional Reading

Recent articles, consensus documents and international guidelines, among others. In TECH's virtual library, students will have access to everything they need to complete their course.





Case Studies

Students will complete a selection of the best case studies chosen specifically for this program. Cases that are presented, analyzed, and supervised by the best specialists in the world.



Interactive Summaries

The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



Testing & Retesting

We periodically evaluate and re-evaluate students' knowledge throughout the program, through assessment and self-assessment activities and exercises, so that they can see how they are achieving their goals.



06

Certificate

The Postgraduate Certificate in Virtual, Augmented and Mixed Reality guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Global University.





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Successfully complete this program and receive your university qualification without having to travel or fill out laborious paperwork”

This program will allow you to obtain your **Postgraduate Certificate in Virtual, Augmented and Mixed Reality** endorsed by **TECH Global University**, the world's largest online university.

TECH Global University is an official European University publicly recognized by the Government of Andorra ([official bulletin](#)). Andorra is part of the European Higher Education Area (EHEA) since 2003. The EHEA is an initiative promoted by the European Union that aims to organize the international training framework and harmonize the higher education systems of the member countries of this space. The project promotes common values, the implementation of collaborative tools and strengthening its quality assurance mechanisms to enhance collaboration and mobility among students, researchers and academics.

This **TECH Global University** title is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Postgraduate Certificate in Virtual, Augmented and Mixed Reality**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 ECTS**



*Apostille Convention. In the event that the student wishes to have their paper diploma issued with an apostille, TECH Global University will make the necessary arrangements to obtain it, at an additional cost.

future
health confidence people
education information tutors
guarantee accreditation teaching
institutions technology learning
community commitment
personalized service innovation
knowledge present
development language
virtual classroom



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